

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims, in the application.

Listing of Claims

Claim 1 (currently amended): A biosensor for determining the concentration of an analyte in a liquid sample, said biosensor comprising:
having

- (a) an electrode support;
- (b) an arrangement of electrodes disposed on the electrode support, the arrangement of electrodes comprising at least a working electrode and at least a second electrode;
- (c) an optional layer comprising (i) at least one enzyme and (ii) at least one mediator overlying the working electrode;
- (e) ~~(d)~~ a first conductive track leading from the working electrode to an electrical contact associated with the working electrode and a second conductive track leading from the second electrode to an electrical contact associated with the at least second electrode; and
- (d) ~~(e)~~ at least one enzyme, or at least one enzyme and at least one mediator, incorporated in at least one of the first conductive track leading from the working electrode to the electrical contact associated with the working electrode, or the electrical contact associated with the working electrode, said at least one enzyme comprising a dehydrogenase, wherein in the presence of said analyte, electrons are transferred from said at least one enzyme to said at least one mediator to said working electrode.

Claim 2 (canceled)

Claim 3 (previously presented): The biosensor of claim 1, wherein the at least one mediator is selected from the group consisting of organometallic compounds, organic compounds, and coordination compounds with inorganic or organic ligands.

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (original): The biosensor of claim 1, the biosensor requiring a low volume of sample to trigger an electrochemical reaction.

Claim 7 (original): The biosensor of claim 1, wherein spacing between the working electrode and the at least second electrode does not exceed about 200 micrometers.

Claim 8 (original): The biosensor of claim 1, wherein the working electrode has an area of from about 0.5 mm² to about 5 mm².

Claim 9 (original): The biosensor of claim 1, wherein the electrode arrangement further comprises a trigger electrode.

Claim 10 (original): The biosensor of claim 1, wherein the electrode arrangement further comprises a third electrode.

Claim 11 (original): The biosensor of claim 10, wherein the electrode arrangement further comprises a fourth electrode, said fourth electrode having the function of a trigger electrode.

Claim 12 (original): The biosensor of claim 1, further comprising an insulating layer overlying said electrode arrangement and said conductive tracks.

Claim 13 (original): The biosensor of claim 12, wherein a layer of mesh is interposed between the electrode arrangement and the insulating layer.

Claim 14 (currently amended): The biosensor of claim 12, wherein a capillary space is interposed between the electrode arrangement and the insulating layer.

Claim 15 (original): The biosensor of claim 1, further comprising a layer of tape overlying said electrode arrangement and said conductive tracks.

Claim 16 (currently amended): A biosensor for determining the concentration of an analyte in a liquid sample, said biosensor comprising:
having

- (a) a first substrate having two major surfaces;
- (b) a second substrate having two major surfaces;
- (c) a working electrode disposed on one major surface of the first substrate;
- (d) at least a second electrode disposed on one major surface of the second substrate;
- (e) an optional layer comprising (i) at least one enzyme and (ii) at least one mediator overlying the working electrode;
- (e) (f) a first conductive track leading from the working electrode to an electrical contact associated with the working electrode and a second conductive track leading from the second electrode to an electrical contact associated with the at least second electrode;

(f) (g) at least one enzyme, or at least one enzyme and at least one mediator, incorporated in at least one of the first conductive track leading from the working electrode to the electrical contact associated with the working electrode, or the electrical contact associated with the working electrode, said at least one enzyme comprising a dehydrogenase;

(g) (h) an insulating layer disposed between said working electrode and said at least second electrode; ~~(h)~~ wherein the major surface bearing the working electrode facing faces the major surface bearing the at least second electrode, and wherein in the presence of said analyte, electrons are transferred from said at least one enzyme to said at least one mediator to said working electrode.

Claim 17 (canceled)

Claim 18 (previously presented): The biosensor of claim 16, wherein the at least one mediator is selected from the group consisting of organometallic compounds, organic compounds, and coordination compounds with inorganic or organic ligands.

Claim 19 (canceled)

Claim 20 (canceled)

Claim 21 (original): The biosensor of claim 16, the biosensor requiring a low volume of sample to trigger an electrochemical reaction.

Claim 22 (original): The biosensor of claim 16, wherein spacing between the working electrode and the at least one other electrode does not exceed about 200 micrometers.

Claim 23 (original): The biosensor of claim 16, wherein the working electrode has an area of from about 0.5 mm² to about 5 mm².

Claim 24 (original): The biosensor of claim 16, wherein the electrode arrangement further comprises a trigger electrode.

Claim 25 (original): The biosensor of claim 16, wherein the electrode arrangement further comprises a third electrode.

Claim 26 (original): The biosensor of claim 25, wherein the electrode arrangement further comprises a fourth electrode, said fourth electrode having the function of a trigger electrode.

Claim 27 (original): The biosensor of claim 16, wherein a layer of mesh is interposed between the working electrode and the insulating layer.

Claim 28 (currently amended): The biosensor of claim 16, wherein a capillary space is interposed between the working electrode and the insulating layer.

Claim 29 (new): The biosensor of claim 1, wherein the enzyme is a dehydrogenase.

Claim 30 (new): The biosensor of claim 16, wherein the enzyme is a dehydrogenase.